

## MATH 338- FALL 2023 (3 credits)

### FUNDAMENTAL MATHEMATICAL CONCEPTS FOR ELEMENTARY TEACHERS II

Sec. 003 Room SCI-A212 TR 2:00-3:15 p.m.

**INSTRUCTOR:** Dee Ann Dewitt

**OFFICE:** SCI D260

**PHONE:** Cell 920-410-6557

**E-MAIL:** [ddewitt@uwsp.edu](mailto:ddewitt@uwsp.edu)

**OFFICE HOURS:** TR 1:00-1:45; 3:30-4:00 pm and by appointment for virtual office hours on Zoom

#### MATERIALS:

**Text:** *Mathematics for Elementary Teachers with Activities 5th edition* by Sybilla Beckman

**Materials required:** calculator (suggested TI-30X), compass, protractor, ruler, colored pencils, scissors, access to a printer

**Materials suggested:** 3-ring binder with loose-leaf paper, hole punch, dividers for folder, unlined paper

#### OBJECTIVES:

This class will ask you to think mathematically and master concepts which will allow you to become effective teachers. Students will explore, examine, discuss, and strengthen their understanding of geometry, measurement, algebra, and logic.

Topics covered will include the following: inductive and deductive reasoning, problem-solving, geometric properties, constructions, polygons, polyhedrons, congruence, similarity, symmetry, transformations, perimeter, surface area, volume, Pythagorean Theorem, systems of measurement and conversions, functions, and slope.

**You will need to go beyond basic concepts; you must be willing to understand the underlying concepts of mathematics so that you are able to communicate mathematics well, both in oral and written form.**

<b>GRADING:</b>	<b>Exams</b>	<b>200</b>	<b>2 exams- Midterm and Final-100 points each</b>
	<b>Homework Quizzes</b>	<b>100</b>	<b>4 on-line quizzes on Canvas- 25 points each</b>
	<b>Homework Projects</b>	<b>100</b>	<b>varied assignments</b>
	<b>Participation/Attendance</b>	<b>50</b>	
	<b>Total</b>	<b>450</b>	

**CLASS GRADE:** Your final class grade will be determined based on the following percentages.

93 – 100 %	A	83 – 86 %	B	73 – 76 %	C	63 – 66 %	D
90 – 92 %	A–	80 – 82 %	B–	70 – 72 %	C–	60 – 62 %	D–
87 – 89 %	B+	77 – 79 %	C+	67 – 69 %	D+	below 60%	F

#### o **Important Dates for Spring Semester**

- o Last day to add or drop a 16-week course without a grade – Sept 14
- o Last day to add or drop a 16-week course- Nov 10
- o Undergraduate student registration for Spring classes begins- Nov 20
- o Thanksgiving recess begins at 6 pm- Nov 22
- o Classes resume- Nov 27
- o Last day of classes – Dec 15
- o **Dropping UWSP Courses:** It is the student's responsibility to understand when they need to consider unenrolling from a course. Refer to the above dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons includes: (1) documented and significant change in work hours, leaving student unable to attend class, or (2) documented and severe physical/mental illness/injury to the student or student's family.

## **EXAMS:**

There will be two exams: a midterm and a final exam.

- **Midterm Exam:** during **week 8 or 9**
- **Final Exam:** **Wednesday, Dec 20 10:15 am-12:15 pm**

**Missing an exam will result in a 0** unless arrangements have been made **in advance** or a **verifiable emergency** develops just prior to class time (in which case you should contact me as soon as possible). In general, approved make-up tests **MUST** be taken **PRIOR** to the next class meeting.

## **HOMEWORK:**

- **Homework quizzes:** You will be expected to do specific problems from the text or from a handout; parts of these assignments will be uploaded to Canvas, and you will receive a complete/incomplete grade on Canvas. Then, I will go over any questions on the assignments in class. Next, you will take a homework quiz on Canvas. Homework quizzes will contain random problems from your completed homework; there also may be questions based on class notes and discussions. You will be able to use only your own notes/problems, which may be conveniently organized in your binder. There will be four homework quizzes worth 25 pts. each.
- **Homework projects:** These will also be given throughout the semester. For example, you could be asked to read an article on a pertinent topic, search for further resources/examples of a concept, or present an example/idea to the class. The point totals on these will be varied and will be announced at the time of the assignment.
- You won't understand every topic immediately; in some cases, you will need to ask questions, seek help from others, and spend more time on the topic. Don't wait to ask for assistance.

## **ATTENDANCE/PARTICIPATION:**

Since a significant amount of material is covered during each class period, it is to your advantage to attend each class. It also is important that you participate in group work in class and contribute to the class discussion. Your Canvas homework grades of incomplete/complete will also affect this grade. Attendance/participation points will determine **11%** of your final grade in this class.

## **TECHNOLOGY:**

Laptop computers and cell phones may not be used in the classroom without the prior consent of the instructor. This class requires a level of focus and an amount of participation that cannot be obtained while you are using your cell phone (including texting, social networking, playing games or browsing the internet) or reading other material (including preparing for other classes). **The use of a cell phone, reading other materials, and other unproductive and disruptive behaviors are considered unprofessional. Please note that unprofessional behaviors have significant negative affect on you and your class members.**

## **COURSE INTRODUCTION ON CANVAS:**

In your **Math 338 Canvas site**, you will find a **Start Here section** with this syllabus and tentative schedule posted as well as a "meet your instructor" post.

There is also a **Student Resources section** which will explain student support on campus, library resources, virtual office hours, and canvas assistance.

Please be sure to read through this material.

## **EQUAL ACCESS AND DISABILITY ACCOMMODATIONS:**

If you have a condition that may impact your learning and/or participation in course activities, please contact the Disability Resource Center (DRC). The DRC will engage in an interactive process with students and identify appropriate academic accommodations and auxiliary services in accordance with the University's legal obligations. Instructors, students, and DRC staff work collaboratively to establish any necessary adjustments or supports. Accommodations are rarely applied retroactively so it is vital that students make timely requests.

Please let me know if you have questions. The DRC is located in 108 Collins Classroom Center and can be reached at 715/346-3365 and [drc@uwsp.edu](mailto:drc@uwsp.edu).

## ACADEMIC HONESTY POLICY AND PROCEDURES:

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class, and integrity in your behavior in and out of the classroom.

At UW-Stevens Point and in all courses, we place great emphasis on academic integrity and honesty. Plagiarism, fabrication, cheating, helping others commit these acts, and any form of dishonesty compromise the educational process and devalue the achievements of all students. All work you submit must be original and completed individually unless collaboration is explicitly allowed. Always acknowledge your sources, cite appropriately, and give credit where it's due. If instances of alleged academic dishonesty are identified, appropriate actions will be taken in accordance with the institution's policies (UWSP Chapter 14). These actions could include revising the assignment, receiving a lower grade or no credit for the assignment, receiving a lower grade for the entire course, or facing greater academic consequences.

If you are unsure if something might be considered academic misconduct, you are struggling to understand the content or an assignment, or you have fallen behind for whatever reason, please contact your instructor as soon as possible. By nurturing a community of support, honesty, and respect, we ensure that academic pursuits and your experiences at UW-Stevens Point are both meaningful and genuine.

## AI POLICY:

Since writing, analytical, and critical thinking skills are part of the learning outcomes of this course, all writing assignments should be prepared by the student. Developing strong competencies in this area will prepare you for a competitive workplace. Therefore, AI generated submissions are not permitted and will be treated as plagiarism.

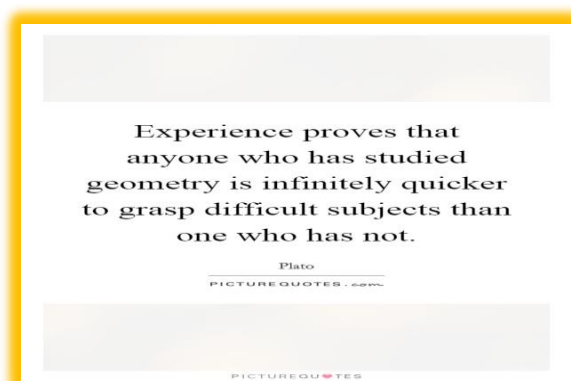
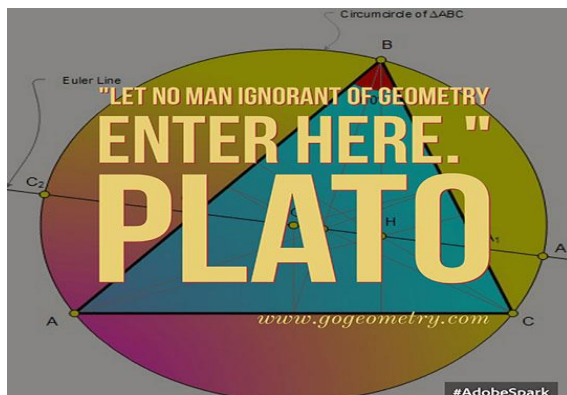
## INCLUSIVITY STATEMENT:

It is my intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that the students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally, or for other students or student groups.

If you have experienced a bias incident (an act of conduct, speech, or expression to which a bias motive is evident as a contributing factor regardless of whether the act is criminal) at UWSP, you have the right to report it, please visit the Dean of Students – Bias/Hate Incident Reporting website. You may also contact the Dean of Students office directly at [dos@uwsp.edu](mailto:dos@uwsp.edu).

## RELIGIOUS BELIEFS

Relief from any academic requirement due to religious beliefs will be accommodated according to UWS 22.03, with notification within the first three weeks of class.



Wk	DATES	Tentative Schedule: MATH 338 FALL 2023 TR
Week 1	SEPT 5, 7	Overview of Geometry- Mathematical Mindsets, Positive Classroom Norms, Common Core Standards
	TR	Connections and Communication
Week 2	SEPT 12, 14	Inductive and Deductive Reasoning; Problem- Solving
	TR	
Week 3	SEPT 19, 21	Patterns/Sequences; Constant Rate of Change (slope)
	TR	
Week 4	SEPT 26, 28	Measurement- Standard Units, Benchmarks, Conversions with Dimensional Analysis
	TR	
Week 5	OCT 3,5	Terms, Lines, Angles
	TR	
Week 6	OCT 10,12	Two Dimensional Figures: Triangles, Quadrilaterals, and other Polygons
	TR	
Week 7	OCT 17, 19	Perimeter and Area of Polygons; Circumference and Area of Circles
	TR	
Week 8	OCT 24, 26	Perimeter and Area of Polygons; Circumference and Area of Circles
	TR	Review for Midterm Exam
Week 9	OCT 31, NOV 2	Midterm Exam
	TR	Pythagorean Theorem
Week 10	NOV 7, 9	Pythagorean Theorem
	TR	Solid Figures: Polyhedra, Cylinders, Pyramids, Cones, Platonic Solids
Week 11	NOV 14, 16	Solid Figures: Polyhedra, Cylinders, Pyramids, Cones, Platonic Solids
	TR	Solid Shapes: Nets, Surface Area, Volume
Week 12	NOV 21	Solid Shapes: Nets, Surface Area, Volume
	T	<b>NO CLASS ON NOV 23- THANKSGIVING RECESS</b>
Week 13	NOV 28, 30	Transformations- Reflections, Translations, Rotations; Symmetry
	TR	
Week 14	DEC 5, 7	Congruence and Constructions
	TR	
Week 15	DEC 12, 14	Similarity
	TR	Review for Final
FINAL		<b>FINAL EXAM - Wednesday, Dec 20 10:15 am-12:15 pm</b>
As your instructor, I reserve the right to make changes to the course schedule based on the learning pace of the class or other unanticipated circumstances. I will communicate any changes to you as soon as they are made.		